

Laser Eye Surgery (Refractive)

During recent decades several Laser Eye Surgery methods have been used to correct visual acuity and to allow some people improvements in their visual performance without needing spectacles or contact lenses.

This Medical Information Sheet (MIS) outlines the CAA's approach to recertification of pilots¹ who have undergone some form of Laser Eye Surgery to correct refractive errors. The information in this MIS relates to LASIK (laser-assisted in situ keratomileusis) surgery as well as other forms of Laser Eye Surgery for the purpose of correcting refractive errors².

CAUTION

This Medical Information Sheet contains general advice concerning the CAA's regulatory handling of medical conditions. This sheet is not intended as clinical medical advice and should not ever be used as the basis of decisions concerning your medical care. You should consult your medical advisers and discuss your options thoroughly with them before making any decisions about your medical care.

Is Laser Eye Surgery OK for pilots?

There are many active private and professional pilots who have undergone laser surgery to one or both of their eyes. Like any other form of surgery there are requirements that need to be met before returning to flying, but most pilots who undergo Laser Eye Surgery return to unrestricted flying status after a period of time.

What do the Medical Standards say about Laser Eye Surgery?

There is no direct reference to laser Eye Surgery in the medical standards. The medical standards do, however, refer to any 'surgical procedure affecting the refractive status of either eye' which would include Laser Eye Surgery. (See 'Looking at the Law' section at the end of this MIS.)

Should I get Laser Eye Surgery?

Like every other form of surgery or medical treatment Laser Eye Surgery offers some potential benefits and is associated with some risks. The CAA cannot advise you on those benefits or risks, that is a matter for you to discuss with your medical advisers and eye specialists.

I'm going to have Laser Eye Surgery! Do I have to notify CAA?

Yes, you are required to 'ground' yourself and notify CAA of your Laser Eye Surgery.

Every pilot has an obligation, under Schedule 2, clause 8 of the Civil Aviation Act, to report any change in their medical condition, or the existence of any previously unknown medical condition, that may interfere with flight safety. Laser Eye Surgery is certainly a medical condition that could interfere with flight safety and so must be reported.

¹ While this MIS only mentions pilots, the information provided applies equally well to Air Traffic Controllers.

² This MIS only refers to Laser Surgery to the cornea (front layer) of the eye to correct disorders of refraction. Eye specialists also use lasers for surgery to other parts of the eye, such as the retina, but that surgery is not the subject of this MIS.

What will happen when I report my Laser Eye Surgery?

CAA will write to you advising you that you're unable to fly from the time of your surgery (usually including temporary suspension of your medical certificate), that the usual stand-down period is for three months, and advising you of what reports and results would be best to expedite your re- turn to flying.

Can I return to flying after Laser Eye Surgery?

Most pilots who undergo laser Eye Surgery do, after a period of time, return to unrestricted flying status. In some cases this return is slower than hoped-for and may be associated with periods of restricted medical certification.

What further tests will be needed to consider returning me to flying?

Usually there is a three-month stand-down period after Laser Eye Surgery. In some very mild cases with excellent results this period may be reduced. In cases requiring high levels of *correction* the stand-down period may end up being longer, but this will depend on the rate and degree of healing after the surgery.

During this post-operative period your eye surgeon will review your progress on one or more occasions. You should ask them to provide you with a detailed report concerning your surgery, so that you can pass it on to the CAA when the time comes.

Usually, your eye surgeon will also arrange for a series of follow-up assessments with an optometrist. You would be wise to tell the optometrist that you are a pilot and that the CAA will be particularly interested in 'glare' and 'haze' readings when you are being considered for return to flying. It's likely that the optometrist would be making those measurements anyway but there's no harm in asking. Again, you should ask for copies of the reports from each of these assessments.

Once you are entirely happy, and your eye surgeon is entirely happy, and three months have passed since your surgery you should liaise with your Medical Examiner and arrange for a detailed CAA Special Eye Report, with particular comment on glare and haze.

You should then pass all of this material to the CAA, best via your Medical Examiner, with a re- quest for the lifting of your suspension. CAA will review the information provided and take further action as appropriate. Your visual performance, especially glare/haze levels, and the stability of the surgical correction will be important factors that the CAA considers before returning you to flying.

Will further tests be needed after I return to flying?

Almost certainly. The long-term follow-up of pilots who return to flying after Laser Eye Surgery includes regular detailed eye reviews. The reviews required by the CAA are more than your eye sur- geon would normally require for their clinical follow-up.

Usually, a further Special Eye Report is required at six monthly internals for the first two years, and then annually for the remainder of the first five years. Further detailed eye follow-up is not usually required unless there have been problems during those first five years.

Sometimes slightly less stringent follow-up requirements are sought of class 2 medical certificate holders who have had very minor degrees of correction and have experienced very good recovery from their Laser Eye Surgery.

Looking at the law

Civil Aviation Rule Part 67: Medical Standards

The medical standards relating to vision in Part 67 of the Civil Aviation Rules are very similar for Class 1, Class 2, and Class 3 medical certificates. The exact wording of the class 1 vision medical standards is shown below. These standards (rule 67.103m) state that an applicant must-

- (1) have no history or diagnosis of any vision disorder that is of aeromedical significance*; and
- (2) without limiting paragraph (m)(1), have no history or diagnosis of any of the following specific medical conditions, to an extent that is of aeromedical significance:
 - (i) abnormality, disease, or pathological process of the eyes or their adnexae;
 - (ii) sequela of disease or trauma of, or a surgical procedure on, the eyes or their adnexae;
 - (iii) abnormal fields of vision or binocular vision performance;
 - (iv) surgical procedure affecting the refractive status of either eye; and
- (3) without limiting paragraph (m)(1), have distant visual acuity, with or without correcting lenses, of 6/9 or better in each eye separately and 6/6 or better binocularly; and
- (4) without limiting paragraph (m)(1), have near visual acuity, with or without correcting lenses, of N5 or better binocularly at a distance of between 30 and 50 centimetres, and have intermediate visual acuity of N14 or better binocularly at a distance of 1 metre; and
- (5) without limiting paragraph (m)(1), have no deficit of colour vision to an extent that is of aeromedical significance.

The class 3 vision medical standards (rule 67.107m) are virtually identical to class 1 while the class 2 standards have lower visual acuity requirements. The class 2 visual acuity requirements (from rule 67.105m) include the requirement that an applicant must-

- (3) without limiting paragraph (m)(1), have distant visual acuity, with or without correcting lenses, of 6/12 or better in each eye separately and 6/9 or better binocularly; and
- (4) without limiting paragraph (m)(1), have near visual acuity, with or without correcting lenses, of N5 or better binocularly at a distance of between 30 and 50 centimetres.

* Rule 67.3(a) defines 'aeromedical significance': A medical condition is of aeromedical significance if, having regard to any relevant general direction, it interferes or is likely to interfere with the safe exercise of the privileges or the safe performance of the duties to which the relevant medical certificate relates.

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